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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/061,706 04/17/98 KEPHART

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EXAMINER

IBM CORPORATION
INTELLECTUAL PROPERTY LAW DEPARTMENT
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YORKTOWN HEIGHTS NY 10598

BASHORE, W

ART UNIT

PAPER NUMBER

2777

DATE MAILED:

11/10/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/061,706	Applicant Kephart et al.
	Examiner William L. Bashore	Group Art Unit 2777

Responsive to communication(s) filed on Jun 18, 1998

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle* 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

Claim(s) 11-61 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 11-61 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been
 received.
 received in Application No. (Series Code/Serial Number) _____.
 received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892
 Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
 Interview Summary, PTO-413
 Notice of Draftsperson's Patent Drawing Review, PTO-948
 Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

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DETAILED ACTION

Examiner's Remarks

References cited on PTO-1449 have not been received by the PTO. Please include copies of references cited with next correspondence.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 13-14, 16, 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

In regard to dependent claims 13, 14, the phrase, "*upon receipt*" is indefinite (see claim 13 line 2, claim 14 lines 1-2). The examiner's suggestion of changing said phrase to, "*upon receipt into data storage*" will overcome the rejection of 13-14.

In regard to dependent claim 16, the phrase, "*a standard ordering*" is indefinite (see claim 16 line 3). The examiner's suggestion of changing said phrase to, "*an ordered set*" will overcome this rejection.

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In regard to dependent claim 33, the phrase, “*occurs instantly*” is indefinite (see claim 33 line 1). The examiner’s suggestion of changing said phrase to, “*occurs*” will overcome this rejection.

3. **In regard to dependent claim 48,** claim 48 recites the limitation “*the re-training step*” in the method of claim 11. There is insufficient antecedent basis for this limitation in the claim. The examiner’s suggestion of changing said phrase to, “*the process of updating tables in response to modifications of a collection*” will overcome this rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 11-16, 17-20, 22-24, 27, 30, 33-36, 44-45, 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewak et al. (hereinafter Lewak), U.S. Patent No. 5,544,360 issued August 1996.**

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In regard to independent claim 11, Lewak discloses a method of suggesting file categories by correlating word patterns in a current file document with category descriptions (see Lewak, column 9 lines 50-55; compare with claim 11 line 3, "*classifying a document to obtain a plurality of most likely categorical labels*").

In addition, Lewak also discloses a method of a user interface, comprising a category window with category descriptions and types (see Lewak, column 8 lines 31-38; compare with claim 11 line 4, "*displaying to the user, a representation of the plurality of most likely categorical labels*").

In addition, Lewak also discloses a method whereby categories describing the current file can be selected by a user (see Lewak, column 8 lines 61-65; compare with claim 11 line 5, "*receiving from the user, data representative of one or more selected categorical labels*").

Finally, Lewak discloses a method whereby after category selection is completed by the user, the new category/file associations are stored within a File Information Directory (see Lewak, column 8 lines 66-67, column 9 lines 1-4; compare with claim 11 lines 7-8, "*labeling the document within the collection with the one or more selected categorical labels.*").

In regard to dependent claim 12, Lewak discloses a method whereby a category named E-mail can be defined as linked to other categories, said other categories presented to the user upon selection of category E-mail for a particular file (see Lewak column 15 lines 39-51; compare with claim 12).

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In regard to dependent claim 13, please note that the examiner interprets the phrase, “*...upon receipt...*” as the following, “*...upon receipt into data storage...*”.

Lewak discloses a method of opening a saved file and invoking an FC Manager with a “Categorize” command for category selection by the user (see Lewak, column 8 lines 1-5; compare with claim 13).

In regard to dependent claim 14, please note that the examiner interprets the phrase, “*...upon receipt...*” as the following, “*...upon receipt into data storage...*”.

Lewak discloses a method whereby upon the category of E-Mail is selected for a file, the user is given indication of related linked category descriptions (see Lewak, column 15 lines 39-51; compare with claim 14).

In regard to dependent claim 15, Lewak discloses a method whereby linked category descriptions are indicated to the user by way of a distinctive style, or check mark, or a descriptive dialog box (see Lewak, column 15 lines 5-55; compare with claim 15 lines 1-3, “*...labeling display buttons with the plurality of most likely categorical labels, and the displaying step comprises the step of displaying the labeled display buttons...*”).

In addition, Lewak also discloses a method of categorizing an opened file at the point of a first save to disk (see Lewak column 7 lines 55-67; compare with claim 15 line 3, “*...with the document.*”).

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In regard to dependent claim 16, please note that the examiner interprets the phrase, “*a standard ordering*” as an ordered set.

Lewak discloses a method of a file manager display showing a column of file type category entries in alphabetical order, along with three other columns of categories, each column containing different entries in alphabetical order (see Lewak, column 8 lines 31-38, Figure 5; compare with claim 16).

In regard to dependent claim 17, Lewak discloses a method whereby upon the selection of a categorize button on an open file, an FC Manager is run, producing a file manager display showing current categories (see Lewak, column 8 lines 1-5, 31-38; compare with claim 17).

In regard to dependent claim 18, Lewak discloses a method whereby a “categorize” command is invoked by a user to run the FC Manager to categorize an open file (see Lewak column 8 lines 1-5; compare with claim 18).

In regard to dependent claim 19, Lewak discloses a method whereby a “categorize” button is used to invoke the method as disclosed in claim 18 above (see Lewak column 8 lines 1-3, column 9 lines 5-7; compare with claim 19).

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In regard to dependent claim 20, Lewak discloses a method of a File Information Directory table (FID) comprising a set of columns containing file names, file locations, and categories associated with each file by a user (see Lewak column 6 lines 16-22; compare with claim 20).

In regard to dependent claim 22, Lewak discloses a method of an FC Manager conditionally categorizing each closed file if not already categorized (see Lewak column 8 lines 6-15; compare with claim 22 line 1, “*...wherein the classifying step is performed by a classifier...*”).

In addition, Lewak also discloses a method of an FC Manager, running as a background process, checking the path of a previously saved file during “null events” for categorization (see Lewak column 7 lines 55-67; compare with claim 22 lines 2-3, “*...incrementally re-training the classifier to adapt to modifications of the collection.*”).

In regard to dependent claim 23, Lewak discloses a method whereby a user chooses a “categorize” command to recategorize an already categorized file (see Lewak column 9 lines 5-10; compare with claim 23).

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In regard to dependent claim 24, claim 24 incorporates substantially significant subject matter as claimed in claim 20 (see claim 20 lines 1-3; compare with claim 24 lines 1-3), and in further view of the following, is rejected as such.

Lewak discloses a method whereby a user makes a first save of a newly created file to disk (see Lewak column 7 lines 55-57; compare with claim 24 lines 4-5, "*receiving, from the user, addition data....into a tofolder*").

In addition, Lewak also discloses a method whereby a File Control system retrieves the file path previously saved, and analyzes the saved file for categorization (see Lewak column 7 lines 58-67; compare with claim 24 line 6, "*re-training the classifier in response to the addition data.*").

In regard to dependent claim 27, claim 27 incorporates substantially similar subject matter as claimed in claim 24 (see claim 24 lines 1-3; compare with claim 27 lines 1-3), and in further view of the following, is rejected as such.

Lewak discloses a method of deleting a file, which impacts the integrity of the identifiers in the FID (see Lewak column 14 lines 40-43, 51; compare with claim 27 lines 4-5, "*receiving from the user, deletion data...from a fromfolder*").

In addition, Lewak also discloses a method whereby (on a Macintosh system), upon the deletion of a file, the Alias Record for the file is updated in the FID (see Lewak column 14 lines

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60-65; compare with claim 27 line 6, ““*re-training the classifier in response to the deletion data.*””).

In regard to dependent claim 30, claim 30 incorporates substantially similar subject matter as claimed in claim 24 (see claim 24 lines 1-3; compare with claim 30 lines 1-3), and in further view of the following, is rejected as such.

Lewak discloses a method of moving a file to another directory, which impacts the integrity of the identifiers in the FID (see Lewak column 14 lines 40-43, 44; compare with claim 30 lines 4-5, “*receiving from the user, move data....to a destination folder*”).

In addition, Lewak also discloses a method whereby upon the moving of a file, a search is made to find the file, based upon creation date/time search criteria (see Lewak column 14 lines 66-67, column 15 lines 1-7; compare with claim 30 line 6, ““*re-training the classifier in response to the deletion data.*””).

In regard to dependent claim 33, please note that the examiner interprets the phrase, “*occurs instantly*” as occurring at some point in time.

Lewak discloses a method whereby a selected file that has been categorized may by recategorized by clicking on a “Categorize” button (see Lewak column 9 lines 5-10; compare with claim 33).

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In regard to dependent claim 34, claim 34 incorporates substantially similar subject matter as claimed in claim 33, and is rejected as such.

In regard to dependent claim 35, Lewak discloses a method whereby an File Control Manager analyzes a newly created file subsequent to a first save of said file (see Lewak column 7 lines 55-67; compare with claim 35).

In regard to dependent claim 36, Lewak discloses a method whereby an FC Manager retrieves and analyzes a previously saved path against categorized files during periods of inactivity (see Lewak column 7 lines 55-67; compare with claim 36).

In regard to dependent claim 44, Lewak discloses a method whereby an FC Manager initializes all data structures involved by reading data from related data files (FCT and FTD tables), as well as previously saved “last used” values (see Lewak column 7 lines 39-4; compare with claim 44).

In regard to dependent claim 45, claim 45 incorporates substantially similar subject matter as claimed in claim 20 (see claim 20 lines 1-3; compare with claim 45 lines 1-3), and in further view of the following, is rejected as such.

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Lewak discloses a method of a FID table read into the memory of a computer, said FID table containing file names, associated categories, and file locations (see Lewak, column 6 lines 17-22, column 7 lines 39-42; compare with claim 45).

In regard to dependent claim 61, Lewak discloses a method whereby category descriptions are stored as records of a random access data base file (see Lewak column 5 lines 40-43; compare with claim 61).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 21, 25-26, 28-29, 31-32, 47-49, 51, 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak, as described in claim 11 above.**

In regard to dependent claim 21, Lewak discloses a method of a file manager display showing categories and descriptions (see Lewak column 8 lines 31-38). Lewak also discloses a

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method whereby linked categories of a selected category can be shown and selected (see Lewak column 15 lines 39-51; compare with claim 21 lines 2-4, "*receiving, from the user, data representative....the plurality of displayed categorizational shortcuts...* "). Lewak does not disclose a method of displaying (or selecting from) a standard list of all categorical labels. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate a standard list, because a "Full Lists" option is disclosed as an example of inhibiting category search contraction (see Lewak column 12 lines 29-31; compare with claim 21 line 1, "...*displaying a standard list of all categorical labels...* ", and line 4, "...*or the standard lists.* "). Applying this modification provides increased user selectability to the method of Lewak.

In regard to dependent claim 25, with reference to the third paragraph of the rejection of claim 24, Lewak does not disclose a method of assigning the added document to a tofolder during re-training. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the method of assigning, because Lewak suggests a method whereby categories which describe a current file are selected, causing new entries to be created in the FID containing the file data (along with file path associations), and associated categories (see Lewak column 6 lines 17-22, column 8 lines 61-67, column 9 lines 1-4; compare with claim 25), providing increased file versatility to the File Control method taught by Lewak.

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In regard to dependent claim 26, claim 26 incorporates substantially similar subject matter as claimed in claim 47, and is rejected as such.

In regard to dependent claim 28, with reference to the third paragraph of the rejection of claim 27, Lewak does not disclose a method of unassigning the removed document from the fromfolder during re-training. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the method of unassigning, because Lewak suggests a method whereby upon file deletion, the Alias Record is updated in the FID, keeping the FID current after each attempted access (see Lewak column 14 lines 40-43, 51, 60-65; compare with claim 28), providing increased file versatility to the File Control method taught by Lewak.

In regard to dependent claim 29, claim 29 incorporates substantially similar subject matter as claimed in claim 26, and is rejected as such.

In regard to dependent claim 31, claim 31 reflects the combined subject matter of claims 25 and 28, and is rejected as such.

In regard to dependent claim 32, claim 32 reflects the combined subject matter of claims 26 and 29, and is rejected as such.

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In regard to dependent claim 47, Lewak discloses a method whereby a file is categorized using a File Control Manager program, said program containing a File Identification table with file locations associated with file names (see Lewak column 1 lines 28-29, 41-45, column 6 lines 17-22, column 8 lines 1-5). Lewak does not disclose a method of identifying excluded folders to be excluded from classification. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate excluded folders, because the method of exclusion is exemplified with search filter definitions, in which categories that find no data are excluded from subsequent pick list possibilities (see Lewak column 10 lines 25-37; compare with claim 47). The taught advantage of exclusion provides increased categorical efficiency to the FID method as taught by Lewak.

In regard to dependent claim 48, please note that the examiner interprets the phrase, “*re-training step*” to mean the process of updating tables in response to modifications of a collection.

Claim 48 incorporates substantially similar subject matter as claimed in claim 20 (see claim 20 lines 1-3; compare with claim 48 lines 1-3), and in further view of the following, is rejected as such.

Lewak discloses a method of a FID table containing the last update time and date for a file (see Lewak column 6 lines 17-22; compare with claim 48 line 4, “*determining a time of a last step of re-training*”).

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In addition, Lewak also discloses a method whereby, for each closed file, a conditional categorization is performed by checking if an FID entry exists with the same creation time and date, subsequently opening the Categories Window if time/date is not the same (see Lewak column 8 lines 7-15; compare with claim 48, line 5, "*retraining the classifier*", and "*modified after the determined time*"). Lewak does not disclose a method of retraining the classifier on each folder. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the use of folders, because initial displayed editable category types is an example of the contents of a displayed file Manager (see Lewak column 8 lines 39-44; compare with claim 48 line 5, "*on each folder*"). The inclusion of folders provides increased order to the retraining method taught by Lewak.

In regard to dependent claim 49, claim 49 incorporates substantially similar subject matter as claimed in claims 20, 44 and 48 (see claim 20 lines 1-3; compare with claim 49 lines 1-3), (see claim 44 lines 1-2; compare with claim 49 lines 3-4), (see claim 48 lines 4-5; compare with claim 49 lines 6-7), and is rejected as such.

In regard to dependent claim 51, Lewak discloses a method whereby an opened file is categorized by an FC system through the use of a "Categorize" command (see Lewak column 8 lines 1-5). Lewak does not disclose a method wherein an electronic document is an e-mail message. However, it would have been obvious to one of ordinary skill in the art at the time of

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the invention to modify Lewak to incorporate e-mail messages, because "E-Mail" is an example of a category disclosed by Lewak (see Lewak, column 15 lines 39-46; compare with claim 51).

The incorporation of e-mail messages provides increased versatility to the categorization method as taught by Lewak.

In regard to dependent claim 60, Lewak discloses a method whereby a File Control Manager is invoked by opening and saving a file (see Lewak, column 7 lines 55-60). Lewak does not disclose a method whereby an electronic document comprises data sets that are not entirely viewable, but categorizable nevertheless. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate categorizable, yet partially hidden data sets, because shortening category description lists is an example of managing a higher level hierarchy to manage limited subsets of a complete category list, providing increased category manageability to the file method as disclosed by Lewak (see Lewak, column 9 lines 60-67, column 10 lines 1-5; compare with claim 60).

8. **Claims 52, 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak as applied to claim 11 above, and further in view of Using Netscape (hereinafter Netscape), 1995 Que Corporation pp. 55, 67 .**

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In regard to dependent claim 52, Lewak discloses a method whereby an opened file is categorized by an FC system through the use of a “Categorize” command (see Lewak column 8 lines 1-5). Lewak does not disclose a method wherein an electronic document is a web page and the collection is a set of bookmarks. However, Netscape discloses a method of a bookmark file presented as a web page (see Netscape p.67, 3rd paragraph, Figure 4.4; compare with claim 52). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the web page and bookmark method as disclosed by Netscape to the method of Lewak, because of Netscape’s taught advantage of World Wide Web and bookmarking compatibility, providing increased Internet adaptation and file retrieval to the file categorization method as taught by Lewak.

In regard to dependent claim 56, Lewak discloses a method whereby an opened file is categorized by an FC system through the use of a “Categorize” command (see Lewak column 8 lines 1-5). Lewak does not disclose a method wherein an electronic document is a multimedia document. However, Netscape discloses a method of a web page containing graphics, text, and sound (see Netscape p.55, Playing Linked Sound Files, Figure 3.9; compare with claim 56). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the web graphic/sound/text method as disclosed by Netscape to the method of Lewak, because of Netscape’s taught advantage of World Wide Web multimedia compatibility, providing increased Internet adaptation to the file categorization method as taught by Lewak.

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In regard to dependent claims 57-59, claims 57-59 incorporates substantially significant subject matter as claimed in claim 56, and is rejected as such.

9. **Claims 26, 29, 32, 37-43, 46, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak as applied to claim 11 above, and further in view of Lang et al. (hereinafter Lang), U.S. Patent No. 5,867,799 issued February 1999.**

In regard to dependent claim 37, Lewak discloses a method whereby a file is categorized using a File Control Manager program, said program containing a File Identification table with file locations associated with file names (see Lewak column 1 lines 28-29, 41-45, column 6 lines 17-22, column 8 lines 1-5; compare with claim 37 line 4, “*...for each folder...*”, and line 7, “*...a subset of folders...*”). Lewak does not disclose a method whereby the classifying step comprises the steps of tokenizing, tallying/comparing occurrences, computing token weights, creating similarity scores, and identifying folder subsets.

However, Lang discloses a method of tokenizing a document into tokens (see Lang column 10 lines 31-33, Figure 5 box 301; compare with claim 37 line 2).

Lang also discloses a method of computing the term frequency (TF) of a token within a document (see Lang column 10 lines 22-23, 29-33; compare with claim 37 line 3).

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Lang also discloses a method of a computed token weight for a given document (IDF) by multiplying the term frequency by the inverse of the document frequency (see Lang column 10 lines 36-38; compare with claim 37 line 4, “*computing...*” and “*...a token weight of each token.*”).

Lang also discloses a method of comparing a term frequency (TF) and a token weight (IDF) by analyzing the cosine between the computed vectors, the related example disclosed pertains to a single word, or token, from two documents (see Lang column 10 lines 50-56, column 23 lines 50-52; compare with claim 37 line 5).

Lang also discloses a method of a similarity measure between TF-IDF vectors (see Lang column 10 lines 50-52, column 23 lines 48-57; compare with claim 37 line 6).

Lang also discloses a method of self-optimization in the form of a highest credibility value, said value dependent upon a TF-IDF technique (see Lang column 14 lines 8-22; compare with claim 37 line 7, “*identifying...*”, and “*...for which the similarity score is highest.*”).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the TF-IDF related methods of Lang to the methods disclosed by Lewak, because of Lang’s taught advantage of adaptive weighting schemes, providing increased predictive accuracy to the categorization and folder methods as disclosed by Lewak.

In regard to dependent claim 38, with reference to the rejection of claim 37, Lewak does not disclose a method of removing folders for which a similarity score is lower than a

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specified threshold. However, Lang discloses a method of parsing articles, and throwing out tokens occurring less than a preselected threshold (see Lang column 12 lines 58-59; compare with claim 38). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the method of Lang to the method of Lewak, because of Lang's taught advantage of selective analyzing, providing increased selective accuracy to the categorization and folder methods as disclosed by Lewak.

In regard to dependent claim 39, claim 39 incorporates substantially similar subject matter as claimed in claim 37, and is rejected as such.

In regard to dependent claim 40, claim 40 incorporates substantially significant subject matter as claimed in claim 37, and in further view of the following, is rejected as such.

Lewak discloses a method of categorizing an open file by invoking a File Control Manager via a "Categorize" button, said manager containing a FID table with a set of columns labeled by file names and file locations (See Lewak column 6 lines 17-22, column 8 lines 1-5). Lewak does not teach a method of separately tokenizing/labeling portions of a document. However, Lang discloses a method for extracting information from a data stream, using at least a portion of each of a user profile (see Lang column 5 lines 61-67, column 6 lines 1-3; compare with claim 40). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the portioning method as taught by Lang to the method of Lewak, because of

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Lang's taught advantage of partitioning, providing increased file analyzation selectivity to the file method as taught by Lewak.

In regard to dependent 41, claim 41 incorporates substantially significant subject matter as claimed in claims 37 and 39, and in further view of the following, is rejected as such.

With reference to the rejection of claim 37, Lewak does not disclose a method of adding the number of occurrences of each token to a tokencount of a tofolder. However, Lang discloses a method of a term frequency, which is the number of times a token appears in a document (see Lang column 10 lines 30-34; compare with claim 41 line 9, "...adding the number of occurrences of each token..."). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the token count method of Lang to the file name/location association method of Lewak, because of Lang's taught advantage of token counts, providing increased statistical information to the File Control method as taught by Lewak.

In regard to dependent claim 42, claim 42 incorporates substantially significant subject matter as claimed in claim 41, and in further view of the following , is rejected as such.

With reference to the rejection of claim 41, Lewak does not disclose a method of subtracting the number of occurrences of each token of the fromfolder. However, Lang discloses a method whereby upon parsing of a training set, a specified number of the most frequent tokens are thrown out (subtracted) from the set (see Lang column 12 lines 58-59; compare with claim

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42 lines 9-10, "...subtracting the number of occurrences of each token from the tokencount of the fromfolder."). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the token subtraction method of Lang to the file name/location association method of Lewak, because of Lang's taught advantage of token subtraction, providing increased statistical accuracy to the File Control method as taught by Lewak.

In regard to dependent claim 43, claim 43 reflects the combined subject matter of claims 41 and 42, and is rejected as such.

In regard to dependent claim 46, claim 46 incorporates substantially similar subject matter as claimed in claim 41, and is rejected as such.

In regard to dependent claim 50, Lewak discloses a method whereby a file is categorized using a File Control Manager program (see Lewak column 8 lines 1-5). Lewak does not disclose a method whereby the classifying step uses the TF-IDF principle. However, Lang discloses a method whereby a preferred adaptation/learning method is the TF-IDF principle (see Lang, column 10 lines 17-22; compare with claim 50). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the TF-IDF method to the method disclosed by Lewak, because of Lang's taught advantage of adaptive weighting schemes, providing increased versatility to the categorization method as disclosed by Lewak.

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10. **Claims 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak and Lang as applied to claims 26, 29, 32 above, and further in view of Netscape.**

In regard to dependent claim 53, claim 53 incorporates substantially similar subject matter as claimed in claim 52, and is rejected as such.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the web page and bookmark method as disclosed by Netscape to the method of Lewak, because of Netscape's taught advantage of World Wide Web and bookmarking compatibility, providing increased Internet adaptation and file retrieval to the file categorization method as taught by Lewak.

In regard to dependent claim 54, claim 54 incorporates substantially similar subject matter as claimed in claim 53, and is rejected as such.

In regard to dependent claim 55, claim 55 incorporates substantially significant subject matter as claimed in claim 54, and is rejected as such.

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Conclusion

11. The prior art made of record and not relied upon is considered pertinent to disclosure.

Lisle et al.	U.S. Patent No. 5,969,720	issued	October	1999
Pirolli et al.	U.S. Patent No. 5,895,470	issued	April	1999
Rosen	U.S. Patent No. 5,772,446	issued	June	1998

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Bashore whose telephone number is (703) 308-5807. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anton Fetting, can be reached on (703) 305-8449. The fax number to this art unit is (703) 308-5403.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

13. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

or:

(703) 305-9724 (for informal or draft communications, please label
“PROPOSED” or “DRAFT”)

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).**

W.L.B.
11/2/1999



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